From: MCCLINCY Matt
To: Eric Blischke/R10/USEPA/US@EPA
Cc: ANDERSON Jim M; SUTTER Jennifer
Subject: RE: Draft Comments on Groundwater Pathway Appendix
Date: 01/23/2009 10:12 AM

Eric,

pH levels in surface water samples collected from the Blue Lagoon in the 1994-1995 time frame range from 9.8 to 10.8. PTI Environmental Services, April 1995, Site Characterization for the "Blue Lagoon" at Marine Terminal 5, Table 16

This document also notes pH levels in monitoring wells MW-1, MW-2, MW-3 and MW-4 which I believe are identified as BL-MW-1, BL-MW-2, BL-MW-3 and BL-MW-4 on the figure in the T-5 source control decision memo.

1995 Ph levels BL-MW-1 - 12.84
BL-MW-2 - 6.65
BL-MW-3 - 6.4
BL-MW-4 - 6.03

The 1995 Port document notes that MW-1 was screened in slag which is likely the source of the elevated pH.

2005 pH data from BL-MW-2 through BL-MW-4 (BL-MW-1 was abandoned) are consistent with the 1995 data and ranges from 6.1 to 6.56. Ash Creek Associates, January 2006, Groundwater Monitoring Report, December 2005 Terminal 5 Upland Facility.

I also looked at the groundwater data from OSM to follow up on assertion from the Port's consultant that the high pH levels in groundwater may be related to OSM slag. Table 4-1, Stabilized Field Parameters -Sept./Dec., 2005 from the Retec Group, May 12, 2005 Source Control Evaluation Report - Metals in Groundwater Oregon Steel Mill, Portland, OR. shows ph data from 23 monitoring wells on the OSM site. Except for three wells (MW-2, MW-20 and MW-21) pH ranges from 6 to 7. MW-2 (pH-12) and MW-21 (pH-10.2) are located on the southwest corner of the OSM facility and are near each other. MW-20 (pH-12.45) is located in or at the southern edge of the former Blue Lagoon.

I did not pull the well logs to determine if any of the OSM wells are screened in slag. However, the slag is pretty widespread at OSM, and I would expect a much wider elevated pH signature if the slag is a pH issue (just an initial working model). Surface water data and data from BL-MW-1 and MW-20 indicate there is elevated pH associated with the former lagoon feature. How this relates to geochemistry in BL-MW2 through 4 is unclear.

Matt

-----Original Message-----
From: Blischke.Eric@epamail.epa.gov
[mailto:Blischke.Eric@epamail.epa.gov]
Sent: Thursday, January 22, 2009 3:33 PM
To: MCCLINCY Matt
Subject: RE: Draft Comments on Groundwater Pathway Appendix

This all came from the T-5 Source control decision document submitted to Kristine.

Eric